DOCUMENT RESUME

ED 254 335 PS 014 956

AUTHOR	Gross, Beatrice; Gross, Ronald
TITLE	Towards Improved Compensatory Education: Findings of Five Conferences to Plan Fresh Follow Through Research.
SPONS AGENCY	National Inst. of Education (ED), Washington, D.C.
PUB DATE	82
NOTE	72p.
PUB TYPE	Collected Works - Conference Proceedings (021) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Action Research; *Compensatory Education; *Early Childhood Education; Outcomes of Education; *Program Design; *Program Effectiveness; *Research Design; *Research Needs; Research Projects; Young Children
IDENTIFIERS	National Institute of Education; *Project Follow Through

ABSTRACT

This report synthesizes findings of five conferences funded by the National Institute of Education (NIE) to plan new Follow Through research. In particular, conference discussions focused on the notion of systematic change; time-on-task as the most promising strategy for success; and encouragement of principal and teacher support for implementing program models. It was suggested that committed teachers are needed to make a program successful, and ways were suggested to "court" them. In addition, it was felt that efforts to strengthen the instructional process must address, among other subjects: (1) staff attitudes and expectations; (2) organizational structure and procedures, including student/staff assignments; (3) systems of incentives and rewards; (4) commitment of local boards; (5) responsiveness to locally demonstrated need; (6) the delivery system; and (7) the management system. In response to a discussion of problems in program implementation and replication, an entirely new format for subsequent Follow Through projects/research was suggested. This format would involve study of exemplary programs to lead to a verifiable theory of effective early primary education and would provide for the necessary adaptations to student differences and other system variables. A discussion of what administrators need to know about a program before it is adopted or adapted is followed by guidelines for new Follow Through pilot projects. Also included are brief descriptions of the Detroit (Michigan), Napa (California), Oakland (California), and Cotopaxi (Colorado) pilot projects. Following a summary of what is known to date about Follow Through programs is a list of 40 background papers prepared for NIE. (AS)

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TOWARDS IMPROVED COMPENSATORY EDUCATION

Findings of Five Conferences to Plan Fresh Follow Through Research

by

Beatrice Gross and Ronald Gross

1982

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PLEASE PLACE

This report was prepared with funding from the National Institute of Education, U. S. Department of Education. The opinions expressed do not necessarily reflect the positions or policies of NIE or ED.

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FOREWORD

Whatever success this program may achieve owes much to the field of compensatory education out of which it grew. We at the Institute acknowledge the crucial input of literally scores of primary school educators, theorists, researchers, and evaluators throughout the country to its development. (The calibre of the professionals who participated in this process is indicated by the list of conference participants on pages .) They talked, wrote, discussed, advised, and occasionally harangued (with good reason). We listened.

A "field-responsive" approach to designing a new program is portrayed in this report. The small staff at the Institute who bore the ultimate responsibility for designing this program -- Jeffry Schiller, Thel Kocher, Larry Rudner, Nancy Borkow and myself -- feel that, to paraphrase Churchill, "Never have so few owed so much to so many."

Charles Stalford, 1982
Project Coordinator, NIE

BACKGROUND: BUILDING ON PAST EFFORTS

Over the past twenty years public and private funds have supported extensive research in primary education. Out of these studies have come promising new directions for improving compensatory schooling. By applying what has been learned in these years from studying successful schools, new demonstration projects could point the way towards more effective education of disadvantaged children. However, this urgent task must now be accomplished under new budget constraints.

During the late 1960s, the Follow Through Program was initiated to make schooling more effective for low-income children by building on the gains made in Head Start. The methodology adopted, called Planned Variation, enabled a variety of educational alternatives to be demonstrated by model-sponsors with different philosophical and practical orientations. The evaluation of the results was conducted by the US Office of Education and its independent contractors.

Although the research/evaluation aspects of Follow Through were criticized, the program gained respect for having provided over twenty alternative instructional models for the primary grades. Follow Through provided a wide range of health, social and other support services to disadvantaged pupils, involving their parents in the schools and sometimes even encouraging the parents themselves to seek productive careers. (An extensive discussion of how the Follow Through programs were developed, and how they fared, is to be found in Follow Through: Forces for Change in the Primary Schools, The High Scope Press, 1980)

In the same years Follow Through (FT) was providing high quality, if expensive, programs, NIE, as the research arm of the federal Department of Education, was investigating the practice of compensatory education. This research spanned the elementary and secondary grades, but was predominantly focused on the former.

Numerous studies sponsored by NIE, FT and others over a decade indicate that active learning time (ALT) is the most powerful and direct determinant of achievement.[1] (In a comparison of FT programs, the achievement gains produced by the Direct Instruction Model and the Behavior Analysis Model were consistently greater than those of other models.)

The theoretical basis of ALT has been traced back to the studies of John Carroll in the early 1960s and Benjamin Bloom in the mid 1970s . Carroll formalized the notion that active learning time is solely responsible for learning and that the amount of it needed to accomplish learning is dependent on an individual's capabilities.[2] Bloom built on Carroll's model. In his discussion of Mastery Learning he confirmed that simple allocations of the same amount of time to each pupil will not bring about mastery -- slower students need a good deal more time than quicker students. And, according to Bloom, both slow and quick students need Cues, Reinforcement (praise), Active Participation and Feedback.[3]

---

[1] An excellent review of the literature can be found in Harnischfeger, Annegret, "Active Learning Time: Its Determinants and Its Role in School Learning," November 1981, The Beacon Institute, Inc., Kenilworth, Illinois 60043. The paper was commissioned by NIE.

[2] Carroll, J.B., "A Model for School Learning." Teachers College Record, 64, 1963.

"The Prediction of Success on Intensive Foreign Language Training." In: Glaser, R. (Ed.) Training and Education, Pittsburgh, PA: University of Pittsburgh Press, 1962.

[3] Bloom, B.S., Human Characteristics and School Learning, N.Y., McGraw-Hill, 1976.

"Time and Learning," American Psychologist, 29, 1974.

"Thought Processes in Lectures and Discussions," Journal of General Education, 7, 1953.

These studies themselves can be seen as part of a longer tradition. Folk wisdom reminds us that practice makes perfect, and educational theorists, including Dewey and Montessori, recognized the need to engage children actively in their learning. A curriculum tailored to engage the active interest and meet the skill level of each child also lay behind such diverse styles of instruction as Individualized Education, Open Education, Mastery Learning, and Direct Instruction.

But while the individualized programs recognized the importance of student engagement and accommodated by encouraging children to select the task and determine how long they would spend at it -- the programs did not deal with two significant findings of the 6-year Beginning Teachers Evaluation Study (BTES). In this NIE-funded study of over 300 experienced teachers, it was found that children stayed more on task when working directly with a teacher and made greater gains when working at a high success level.

Exceptionally skilled teachers were able to allot a substantial amount of time for academics, present them in a lively manner so as to engage a diverse group, and simultaneously meet each individual's need for success and reinforcement. And the achievement of these children reflected it.

Naturally, most teachers are not that skilled. Many waste valuable teaching time on unproductive activity. Some can't maintain sufficient order, others wander off the subject matter or spend too much time in transitions or administrative paperwork. Many aim their lessons too high or too low for the children.

However, research sponsored by the NIE showed that with proper support, most teachers could be trained to be more effective. Improved classroom management procedures could help them carve out more quality academic learning time -- which would raise the achievement scores.

New Programs

In June, 1980, NIE was invited by the Office of Elementary and Secondary Education in the Department of Education to mount research which would utilize a portion of the Follow Through (FT) funds specifically set aside for research and development. Of the full FT budget for 1981, NIE was allotted $2.5 million (approximately 5.6% of the total

FT budget for the year and 30% of the FT research budget) to fund pilot projects which would help improve primary school compensatory education programs. Due to reductions the FT program suffered subsequently in budget, NIE was finally allotted $700,000 in 1981, with $1.2 million additional to be allotted in 1982 and 1983.

This money gave the NIE the opportunity to build new programs on successful research in the past decade. In addition to the BTES and the Direct Instructional Model developed by the University of Illinois for Follow Through, NIE wanted to follow up the More Effective Schools studies which connected better classroom work to more supportive school management and leadership.

The money also gave the Institute a chance to listen to the field. To get a synthesis of the field's thinking, NIE commissioned 44 papers and invited over 180 educational theorists, researchers, Follow Through sponsors and national and local educators to five conferences, at which experts met in groups to discuss desirable directions for the new projects. While the Institute was determined to consider the recommendations made by the conference participants, it did not intend to pursue research that was either of little current value, or that was repetitive. And, aware that schools' funds would be considerably reduced in the coming years, the Institute was interested in testing programs which would be not only effective but economical and replicable.

THE CONFERENCES

The syntheses of these meetings are available. Contact Charles Stalford at the NIE and request "Planning for Improved Primary School Education," 1982

Portland, Oregon (February 4-5, 1981)

Thirty-eight mostly west-coast educators, many of whom were associated with Follow Through programs, attended. Among the participants who discussed desireable characteristics for the new projects were:

Douglas Carnine, University of Oregon (keynote speaker)
John Evans, Educational Testing Service, Berkeley, CA
Walter Hathaway, Portland Public Schools (who co-hosted the conference)
Asa Hilliard, Georgia State University
Preston Kronkosky, Southwest Educational Development Laboratory
William Spady, American Association of School Administrators, Washington DC
Robert Stahl, California Teachers Association
Raymond Garza, University of California, Riverside
Alice Paul, University of Arizona
Robert Stahl, California Teachers Association
Leslie R. Williams, Teachers College, NY

Philadelphia, Pennsylvania (February 10-11, 1981)

Fifty mostly east-coast educators, many of whom were associated with FT programs, attended. Among the participants who discussed desireable characteristics for the new projects were:

Robert Egbert, former Director of Follow Through
Hortense Jones, New York City Board of Education
Dick Jung, National Advisory Council on the Education of Disadvantaged Children
Pat Olmstead, University of North Carolina (keynote speaker)
Thomas McNamara, Philadelphia Public Schools
Lorraine Smithberg, Bank Street FT Program Director
Barak Rosenshine, University of Illinois
Linda Stebbins, Abt Associates, Cambridge, MA
John Porter, Chief State School Officer , Michigan
Michael Keane, ETS, Evanston, IL (who returned to Phila. to co-host the conference)
Gordon Klopf, Bank Street College of Education, NY
John Ogbu, University of Delaware

Austin, Texas (February 19-20, 1981)

Thirty-four evaluation specialists discussed field evaluation of the new projects. Attendees included:

Eva Baker, University of California at LA
Jane David, Palo Alto, CA
Michael Fullan, Ontario Institite
Walter Hodges, Georgia State University
Richard Jaeger, University of North Carolina
Mary Kennedy, Huron Institite, MA
Stuart Rankin, Detroit Public Schools
Robert St. Pierre, Abt Associates, Inc.
Isuara Santiago-Santiago, TC, Columbia University, NY
Freda Holley, Austin School District (who co-hosted the conferance)

Pittsburgh, Pennsylvania (March 12-13, 1981)

Thirty educational researchers and evaluation specialists discussed basic research needed to support the new projects. Attendees included:

Ernest House, University of Illinois
Walter Haney, Huron Institite, MA
Edmund Gordon, Yale Unviversity
Thomas McNamara, Philadelphia Public Schools
Margaret Wang, Unviersity of Pittsburgh (who co-hosted the conference)
Gene Glass, University of Colorado
David Weikart, High/Scope, Ypsilanti, MI
Edward Zigler, Yale University
Chad Ellett, University of Georgia
Dalton Miller-Jones, University of Mass. Amherst
Susan Loucks, The Network, Inc, Andover, MA

Washington, D.C. (November 16-17, 1982)

To help the districts refine their winning proposals, representatives from the four pilot projects awarded NIE FT research contracts to increase efficient use of learning time, met with technical advisors (TAs) in evaluation and staff relations. Among those at the meeting were:

David Berliner, NIE/University of Arizona (TA to projects)
Gary Borich, University of Texas (TA to projects)
Sheldon Sofer, Detroit Public Schools (Project Director)
Marilyn Jones, Oakland Public Schools (Project Director)
Dennis Sparks, Consultant, MI (TA to projects)
Judith W. Little, Consultant (TA to projects)
Yvonna S. Lincoln, University of Kansas (TA to projects)
Pam Robbins, Napa County, CA (Project Director)
David M. Trujillo, Superintendent of Schools, Cotopaxi, CO
Robert Floden, Michigan State Unviersity (TA to projects)
Virginia Koeler, NIE
Ursula Piñero, NIE
Larry Villers, Custer County School, Westcliffe, CO

THE CONFERENCES: TOWARD IMPROVED STRATEGIES

Before the conferences, the research NIE found most promising (which focused on more effective management of instruction) had not explicitly addressed how the new practices could be implemented in schools on a systemic basis. For this reason, the Institute thought it best to focus the new programs on instructional management and implementation on a system-wide basis.

A. Initial Planning Concept

The initial issue statement participants at Portland and Philadelphia were asked by NIE representatives to consider and respond to read as follows:

> "The past ten years have been enormous attention focused on the educational needs of low-income children, and on how schools could better meet them. Hundreds of programs, many sponsored by the Federal government through Title I of the Elementary and Secondary Education Act, have been developed at the local level. Many others have been tested systematically through the Follow Through Program.
>
> Much effort has been devoted to identifying transferable knowledge from these programs. The Department of Education's Joint Dissemination Review Panel has validated over 300 exemplary programs which have emerged from Title I, Title IV-C, Follow Through and other programs. Through the National Diffusion Network, over 120 of these are being disseminated to schools in every state and territory.

The Research and Development Exchange funded by NIE brings together craft and research knowledge on improved techniques of classroom management, staff development, and teaching methods. Many State education agencies have adopted IVD processes which are used to identify, validate, and disseminate exemplary education practices within their state. The list of dissemination efforts easily could be expanded.

While no simple recipes for success have emerged from these efforts, they provide a rich body of suggestions about how to make Follow Through better. Rather than develop new curricular or learning theories anew in the first new Follow Through approaches NIE wants to exploit available information. For example, the demonstrable successes of the Direct Instructional Model and Behavior Analysis Model in the Follow Through National Longitudinal Study lead many to conclude that such approaches should be built upon. The success of the former is entirely congruent with a much larger body of research on similar instructional strategies that comes to much the same conclusion. More recently the Beginning Teacher Evaluation Study (BTES) has identified the importance of "engaged academic learning time," or time on task, as an effective determinant of learning.

Somewhat hidden in the overall conclusions of the variability within individual Follow Through models but still important are successes of numerous specific sites in individual models, analysis of which can suggest the way to further improvement. Included in these are models of "humanistic" and cognitively oriented programs, those serving bilingual children, and those systematically involving parents, families, or community in the child's education.

With this rich body of information in hand, as well as with respect for earlier difficulties, NIE believes that the first wave of new pilot projects should not focus upon new curricula or instructional practices per se. Basic research and earlier experiences in Follow Through programs indicate that there are many instructional practices that can be effective, if managed or implemented properly. The first new Follow Through approaches will therefore focus on demonstrating new ways in which LEA's can overcome barriers to effective instructional management and implementation.

Illustrative themes around which pilot projects for the New Strand I approaches might be organized to use such knowledge include:

- Means to increase instructional time in Follow Through Classrooms through improved management of services;
- New patterns of staff development and selection of staff to gain better instructional management, including cooperative agreements between schools, teacher education institutions and teacher associations or unions;

- New ways to systematically involve parent and community groups in planning and conduct of Follow Through programs, including the use of parents and families to provide instruction in the home or community;

- New uses of information systems, including assessment and evaluation results, to bring better diagnostic and prescriptive information to bear on Follow Through student learning needs;

- New ways to facilitate support of school building and district administrators for substantial changes typically required by innovative Follow Through procedures.

NIE believes the new pilot projects should focus on systemic change. That is, they should not deal simply with changes in the classroom or other single component. Rather, they should be designed to bring about changes in the whole system required to deliver instruction and should result in increased coordination and support within that system.

Documentation and evaluation of the pilot projects will be of major importance. NIE expects to provide support to each pilot project to assist it in the design and execution of a documentation and evaluation system. The system should help the project identify weaknesses so that these may be corrected and provide information that external audiences interested in using all or part of the project can use to determine its effectiveness. Of particular interest in the documentation and evaluation system will be methods of determining how well the project is implemented."

Source: Plans for Follow Through Research and Development Jeffry Schiller, Charles Stalford, Lawrence Rudner, Thel Kocher, Howard Lesnick. National Institute of Education Oct 1, 1980.

B. "Systemic Change": The Field Tries It On for Size

It wasn't easy for most educators at the two meetings to get behind the notion of systemic change. Some worried that it was nebulous and needed more definition, others that it needed constraints, and still others asserted it was misguided because "effective change can only occur in small units.

Their initial critical reactions may have been influenced by what Doug Carnine from the University of Oregon and the keynote speaker at the Portland conference called "a history of conflict in Follow Through." In bringing together old rivals, the Institute knew old conflicts were

bound to be aired; it also realized that the forthright expression of concerns would presage problems that could arise in the implementation of a new program.

Since each person had only to look across the table to find someone who held an opposite educational philosophy, it was easy for those affronted by what they saw to imagine a system-wide mandate that would outlaw or impede their own preferred teaching style. For a while it seemed that the only agreement that would be reached in this group of truth-finders was that the person sitting across from them at the conference table was misguided. Further, some suspected that this project was threatening the breath and life of what they held dear in Follow Through. They interpreted the NIE's focus on instructional management to be a sign that the government was turning its back on parents, threatening to do away with auxiliary services, giving priority to research over the needs of community and children, and putting an undue emphasis on achievement scores as the determining factor in program adoption.

The conferees worried that system-wide change would ignore the needs and opinions of the teachers and parents. They felt that better coordination of federal and state programs, research on maintaining and replicating a program in a state of high excitement and productivity were at least as important, if not more important, than systemic change. After hearing from the field , the Institute rethought the notion of systemic change.

Despite NIE's decision, discussion on the ideal-size unit for change continued at subsequent conferences. Stuart Rankin, the assistant superintendent of Detroit's public schools, told the Austin evaluation conference that "the smaller the unit, the more amenable it is to change, and therefore," according to Rankin,"system-wide change is difficult to effect."

Generally, school administrators were more aware and more sympathetic to the teachers' resistance to change than were academics. Dennis Sparks, an educational consultant from Dearborn, Michigan, speaking at the November Washington meeting, recalled how uncomfortable, angry and defensive he and other teachers had been when an administrator demanded that they adopt a new instructional system.

"Rarely is the point made strongly enough, but change is always painful," agreed Sheldon Sofer, project director from the Detroit public schools.

Just as systemic change worried many of the Follow Through people at the first two conferences, classroom by classroom change was anathema to the evaluators. A classroom might be easier to change than a school, as Stuart Rankin claimed, but there were research problems connected with a one-class island of change.

The Austin conferees recommended that for research purposes all the K-3 classrooms in selected schools should use the same method, and ideally two or three schools that differed one from another in ethnic mix, size and location (rural or urban) should be involved. They hoped to see material collected for at least five years, and with a careful documentation of the schools' ecology (attitudes and school climate) have just the kind of data that would answer transferability questions. (Their suggestions were ultimately reflected in the design of the RFP and helped guide the choice of districts selected.)

C. Time-On-Task: The Most Promising Strategy

"We have proven that dramatically higher basic skills' competency is produced with the direct instructional model," said John Evans of ETS, a leading behaviorist. "If we set up a coordinated model, including the organization of instruction to increase time-on-task, and if we select and train teachers who use our tested and proven teaching methods faithfully, we can guarantee success. We have found the way to eliminate dysfunctional teaching styles. The method is teacher-proof. The kids all learn to read and compute."

Not all Portland and Philadelphia participants were as enthusiastic as John Evans. Some were concerned that such an approach would dehumanize education.

But even participants who were not familiar with the "Model of Classroom Instruction" (pictured on page 12) from Carolyn Denham's anthology Time to Learn[1] were aware that the bottom line was the achievement test scores.

---

[1] Fisher, Charles W., Berliner, David C., et al. "Teaching Behaviors, Academic Learning Time and Student Achievement: An Overview," from Time To Learn edited by Denham and Lieberman. NIE 1980.

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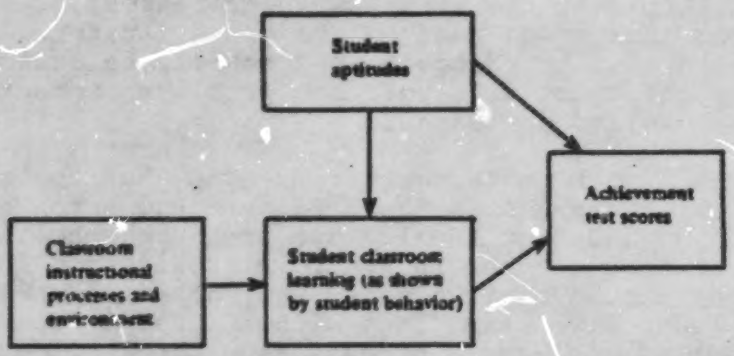
Figure 1.1. A Model of Classroom Instruction


Student aptitudes
Achievement test scores
Classroom instructional processes and environment
Student classroom learning (as shown by student behavior)

This emphasis on achievement scores did not please those FT program developers at the Philadelphia and Portland meetings who had rejected achievement scores as the proper gauge of their FT models in the past.

But at the Washington meeting, where David Berliner, the former director of the Far West Labs BTES study presented a comprehensive definition of engaged learning time, the enthusiasm was evident. The group meeting to refine their proposals for local implementation listened attentively as Berliner clarified the benefits and limitations of engaged learning time:

> Increasing engaged time, which seems simple, requires that we solve rather difficult problems, like mastering the delicate art of pacing, getting teachers to change their attitudes and their behaviors, and getting children to accept more responsibility for their learning.
>
> Allocating more time for basic skills is not the same as increasing engaged time. Even if a teacher set aside a whole day for basic skills work, the full time would not be utilized for concentrated work. It couldn't be. So allocating time for the work, while necessary, is not sufficient. Even when one can make a modest guess as to how much of the allocated time will be engaged time, we are not home free. Increasing engaged time is not enough. There are various levels of engagement. Children have to be challenged and, at the same time, be successful.

According to Berliner, the six experts who worked on the BTES pooled their expertise and, after mulling, discussing and analyzing for six months, came up with the following formula-

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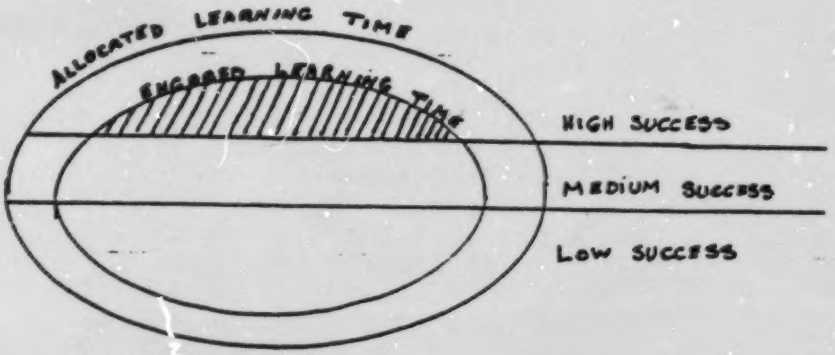
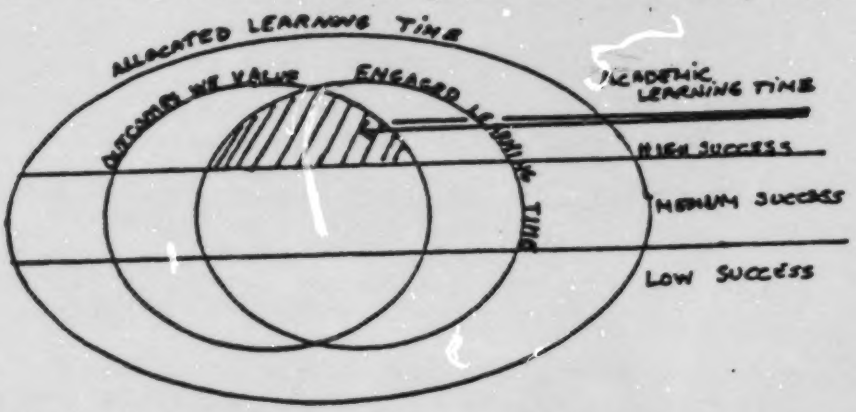
tion: "The Engaged Learning Time which constitutes a part of the Allocated Learning Time, should be divided again into three more categories called hard (low success), medium (medium success), easy success." And, the BTES results indicate that students should be working on tasks that provide high success most of the time.



But even that picture (as shown above) isn't complete, for the student must be successfully engaged in learning which will be measured by an achievement test.

As the diagram below shows, only where the outcomes that are tested overlap with the engaged learning time at a high success level do we have the most productive learning situations.



Even those who feared teaching to the tests would take time away from activities that promoted creative thinking, problem solving, enthusiasm for work and pro-active, cooperative student behavior were willing to support an effort to increase engaged time on meaningful tasks. While they still felt that no standardized achievement test developed to date was sensitive enough to be the bottom line of evaluation, they willingly offered recommendations on how to increase engaged learning time.

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They suggested:

- Getting students to work independently and to interact collaboratively
- Defining "task" in terms of clear attainable goals
- Assessing the performance of students and teachers in relation to the achievement of the tasks
- Installing a management information system that helps the teacher keep track of the child's skill level and indicates the next appropriate task
- Reducing interruptions of learning time that occur when children or teachers are required to leave class
- Matching instructional strategies to learning objectives and children's learning styles
- Providing varied approaches, adequate practice-time and multiple opportunities for learning and succeeding
- Designing a program and appropriate curriculum, so that tasks would be congenial to the learning styles and the cultural interests of the children
- Getting aides to relieve the teachers of clerical work.
- Enlisting the parents to help children study at home
- Enlisting the students in activities that would make them more self-determined learners
- Seeing to it that teachers conveyed their belief that children could learn to the children

David Berliner himself indicated that a single classroom emphasis on items covered by the tests would be unfortunate:

> Most of the enriching, motivating, stimulating talk that goes on in a class is effort that will not be reflected on the tests. Activities that are geared to stimulate students to begin to pace themselves, to build on their own sense of responsibility towards the outcomes (which will serve them later in life) will not be directly reflected in the tests.

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And he warned that Engaged Learning Time was no panacea. "At the beginning, when a subject is being introduced, there is a very strong relation of quality time spent and a high success rate to outcome, but later the relation drops," explained Berliner, resulting in a problem of diminishing returns. "Nor are the results of ELT as predictable when working with high ability students."

Testing and Time-On-Task

Although increasing time on task has not been a concern of test makers, two presenters at the Pittsburgh conference described how tests could be designed to be useful to teachers and children for just this purpose.

Walter Haney from the Huron Institute proposed that tests be developed from which children and teachers could learn -- and he suggested that a reasonable place to begin would be with theories of learning (such as Benjamin Bloom's theory of mastery learning). If tests were to be designed as learning instruments, they might provide:

1. Cues that could be altered or adapted to the needs of particular learners, i.e., written cues for some students, oral cues for others

2. Opportunities for active participation and practice with differences in the amount of practice or participation depending on the individual learning style and needs of students

3. Reinforcers which would be adapted to the particular learner (since what is a reward for one child may not be for another)

4. Quick and corrective feedback for students

An important part of increasing engaged learning time is hitting the mark with teaching strategies, and some of Haney's suggestions show that he not only had thought out how to zero in to the child's needs and interests through tests, but also how to give that all important quick feedback. Specifically, he suggested that tests should:

- be available in alternative modes of presentation
- be presented in "game forms" familiar to the children who are taking them, e.g., word-wizard games, rather than vocabulary tests
- be self-scoring or scorable by individual test-takers
- be of variable length (not all children can sit an hour)
- provide results not only on whether the answers are right or wrong, but on the pattern of the errors or sources of corrective instruction so teachers can design lessons to correct errors in understanding

Other ways tests can be used to increase productive learning were proposed by Dalton Miller-Jones, a University of Massachusetts professor, who presented at the Pittsburgh conference. According to him, teachers can fruitfully look beyond the technical errors of children (which provide guidance as to what needs review and practice) to the ways children process information.

Pointing to the research evidence, he hypothesized that many minority children have divergent test-taking strategies. It would appear that some minority children also process material differently and develop unique, often ineffective learning tactics. "Now that we suspect they think differently -- we should learn how they think differently -- so we can help these children better accommodate to the demands of schools," said Miller Jones. If the clinician working with children from culturally different backgrounds can understand the children's logic and their cognitive problem-solving patterns, then lessons could be better matched to the needs of these children, and real progress in correcting patterns of school failure could be made.

All in all, participants at the Portland and Philadelphia program-planning conferences plus those at the other conferences neither agreed among themselves on desirable characteristics for the new programs nor about the proposed NIE foci of systemic change and time-on-task, but they presented numerous insights in these and other areas about effective instruction. As a result of this input, NIE discarded the systemic change focus as unmanageable but retained the emphasis upon time-on-task.

D. Principal and Peer Support

One of the greatest frustrations, the teachers' lack of fidelity to the old FT models, was alluded to frequently at the Portland and Philadelphia conferences, but only a few of the participants actually analyzed the factors leading to the situation and made suggestions for how it could be corrected.

Researchers and evaluators who had been stymied by the lack of discernible implementation upon which to base their reports tended to distribute the responsibility between the model designers, who they felt may have insufficiently articulated and communicated the behavior teachers were to engage in, and the teachers, who even when "well prepared" were slip-shod about following guidelines laid out for them.

Sponsors were more likely to informally blame the teachers. Even those whose programs produced notable results obliquely disparaged teachers by claiming that their methods were "teacher proof". Those model-sponsors of old FT programs that failed to produce dramatic results, complained that their model's true effectiveness was never properly tested because so many of the teachers they trained, ignored the guidelines and returned to their inadequate but familiar style of teaching as soon as the sponsor-trainers left the school.

There were, of course, teachers, administrators and academics who defended teachers. But no speaker matched Robert Stahl in his unequivocal respect for the professional in the classroom. Stahl, the manager of the Instructional and Professional Development program of the California Teachers Association, felt that committed teachers had to be recruited to make a program successful, and he suggested ways to "court" them.

"Tell them what kind of assistance they will get. Tell them what kind of staff training will be involved and how much time it will take. Tell them what new skills they must master and if those skills will serve them after the project is over . . . Treat them with respect . . . Get them to volunteer for the new program. Unless an enthusiastic explanation of what the project can do for a teacher is given, expect reluctance," he cautioned.

After the best teachers have been selected and before inservice training begins, programs should develop methods to maintain teachers' commitment. The work-group concerned with building internal support systems advised that program administrators:

- Give participants "a piece of the action" by involving them in planning the inservice program.
- Bring in an evaluator to help define the project, to work with the teachers to decide on the scope and size of the experiment, and to design the formative and summative evaluations.
- Consult with participants about scheduling staff development programs and be prepared to offer training during the instructional day or to pay teachers for their overtime.
- Invite professional collegial interaction among participants.
- Focus on what teachers do, not what they are.
- Build the program around what is already working effectively in the school.
- Provide a plainly written explicit description of the program goals and practices.
- Make the staff development program responsive to a school needs-assessment in which the teachers participate. Try for staff consensus. It's the best assurance that the program will be implemented.
- Keep meetings short and distribute a written agenda in advance.

- Include both theory and practical ideas for the classroom.
- Spend some time on the technology of the instructional model and the management of class time.
- Keep the expectations and capabilities of the staff in mind when training them.
- Find ways to get teachers' honest reactions to the training as it proceeds.
- Give teachers the tools, the time, and the training to enable them to observe and diagnose children and make informed decisions about their learning needs.
- Train substitute teachers along with the regular staff.
- Recognize that programs will vary from site to site.
- Advise teachers how they can get help from outside resources such as teacher education associations, teacher resource centers, networks for teachers, teacher exchanges, and trained volunteers.

Speaking at Pittsburgh, Gene Glass, researcher from the University of Colorado, Boulder, argued that statistical evidence shows that innovative educational treatments have little appreciable effect and research evidence bears this out. But teachers rarely study the "evidence." Rather they embrace or reject programs on the basis of their understandings, beliefs, and wishes -- reasons which make more sense to Glass than "the arbitrary and illegitimate authority of evaluators." Believing that researchers who want to help teachers should emphasize qualitative description, he would have their reports include:

- Some coherent, detailed portrayals of life in school for pupils, teachers and parents as it is colored and shaped by allegiance to a particular instructional model
- Some portrayals by disinterested, expert ethnographers with at least two years on-site for data collection

- Some portrayals focused on a broad range of concerns including the model's philosophy, its history (since its future must be projected), techniques, financial and psychic costs, side-effects and after-effects, the roles it requires people to play, its potential for a favorable evolution, and the like

"Our evaluations should not attempt to discover the one or two right programs for all children and get everyone to follow the prescription," concluded Glass. "We need evaluations that will help school people make informed choices based on their goals, their philosophies and the nature of their districts."

Midway between Stahl and Glass' position that most teachers conscientiously choose to adopt, adapt or ignore innovations and the contention of the disappointed model sponsors that many teachers mindlessly subvert programs, is the perception of Judith Little, from the Center for Action Research. She claims that even the best teachers with good intentions often cannot faithfully adhere to a system they believe in if they are not monitored frequently-- their resolve is just not enough when classroom exigencies come along. Little attributes better teaching to increased staff collaboration -- what she calls "the norm of collegiality" which is very difficult to build but well worth it. In her presentation at the Washington Conference, Little described how teachers in more effective schools behave differently from those in less effective ones. She reported that the teachers spoke to each other about teaching in precise terms that communicated subtleties about their aims and techniques. They observed one another frequently and having learned to separate practice from personality were able to give and take criticism. They were willing to articulate their objectives and get feedback from peer observers on how well they were meeting those objectives. The planned and prepared lessons in teams and learned from teammates how their lessons could be clearer and more interesting. According to Little all of this takes trust, intelligence, tact, honesty and a willingness to change or modify classroom techniques -- but it results in more effective teaching.

Little also pointed out that successful teachers were usually aided by strong principals, who were educational leaders rather than merely adept administrators, a point confirmed by NIE's Virginia Koehler and Ursula Piñero citing evidence from effective-schools research.

Since, as Piñero pointed out, most principals are trained as administrators and selected for their administrative ability, most do not have the skills needed to be dynamic educational leaders.

The project directors attending the DC meeting in preparation for turning educational insights into workable projects were well aware that they might have to do as many savvy district administrators now do -- make workshops available to principals as well as teachers if they were to radically improve their schools.

Principals need to be well informed about instructional methods, have better supervisory techniques and take a more assertive role in the selection and training of new teachers, according to the speakers.

They must be prepared to make regular visits to classrooms and follow them by meeting with staff to suggest improvements -- in a non-threatening way. They must encourage experimentation and make provision for teachers to plan together rather than discouraging teacher initiatives.

They must communicate their faith in students and staff by setting high expectations and by officially recognizing effectiveness, providing a safe and orderly school, a system for monitoring and assessing pupil performance, and a schoolwide emphasis on basic skills instruction.

The imperatives of Little, Koehler and Piñero reinforced the advice given earlier by Portland and Philadelphia conferees, that efforts to strengthen the instructional process address:

a. The attitudes and expectations of the staff, with special attention to the involvement of the principal

b. The organizational structure and procedures including student/staff assignments, time allotments, and role responsibilities

c. The system of incentives and rewards that will be used to encourage high-level performance

d. If and how teacher associations will be included in the negotiations

e. If and how the local Board's commitment to the new model has been assessed

f. How to introduce new materials, new structures, new teacher behaviors and new values

g. How to work with the staff so these new structures, behaviors, and values and "internalized"

h. A plan that is responsive to a demonstrated local need.

i. A well-thought-out delivery system which includes the training of parents

j. An effective management system

k. A plan for involving sponsors or outside advisors who can help maintain the quality of the curriculum, train staff, and work with teachers and parents without causing conflict.

RESEARCH AND EVALUATION

Evaluations that do not dig deeply enough to reveal what has really happened are worse than useless. They may damage the educators and the children involved. For the educators, they deny hard-won advances. For the children, they obscure benefits that could, in turn, help educators elsewhere to help their pupils.

For example, at roughly the same time as the BTES researchers were comparing the effects of teacher management skills on students, other NIE funded researchers were challenging an educational shibboleth generated by the Coleman Report on the Equality of Educational Opportunity-- that success and failure in schools was primarily a matter of social class and family background. Public interpretation of the Coleman evaluation and research results -- that schools and teachers could make very little difference -- constituted a "formidable obstacle to advancing [educational] equity" according to Ronald Edmonds, a key researcher and disseminator of the Effective Schools Study that contradicted Coleman's findings. According to Edmonds, Koehler, and others who have spoken about the effects of the Coleman study, the belief that their work would not have much of an effect discouraged school people from trying to improve their techniques.

In contrast, the Effective Schools Studies have encouraged school people to find ways to improve their teaching and managing techniques.

How could two studies have produced such different findings? One collected budget figures, listed comparable facilities, numbers of teachers etc. and compared them with the achievement scores. The other, looked carefully at the few high achieving schools in the ghetto which challanged the average expectations. The Coleman study lost important results by averaging good schools in with the failures, thus masking the real differences between effective and ineffective schools - differences which were more important than facilities or budget allocations.

Is "It" Being Done? Can It Be Done Again?

It is reasonable that no program's results should be tabulated or publicized before it has been determined that a specific treatment has been administered. Yet, determining implementation in educational research that is not necessarily the norm.

The problem became painfully clear when attempts to conscientiously verify the "treatment" of earlier Follow Through planned variation models floundered. Treatments were insufficiently defined and usually unstable, and there were too many variables (such as the styles of the teachers, the backgrounds and experiences of the children) and hosts of unpredictable social forces (such as strikes, student attrition, community tensions, etc.).

All the major Follow Through evaluators were frustrated by the lack of specificity of treatment in earlier FT models. They complained of "inconsistency of classroom behavior within the program" (Soar); "imprecise treatment definitions and descriptions" (Emrick); "a lack of explicit statements by sponsors of what proportion of the time-critical variables would occur in an ideally implemented classroom" (Stallings); and of "inadequate assessment of whether the sponsors' evolving programs were implemented" (Abt).[1]

Equally frustrated were the FT model-sponsors attending the conferences, who expressed themselves on the issue:

- "The local school district refused completely to comply with our guidelines," said one model-sponsor. "And even after we complained to the Feds they got away with it, because it was a political money grant, not one based on the site's willingness to adhere to our guidelines. We learned we had no clout."
- "Every teacher in that city 'messed up.' The city was famous among all the sponsors. Whatever those teachers were doing, it wasn't what we had in mind. They just went their own way."
- "It seemed the further a district was from our home base, the less apt they were to be implementing our program," said another sponsor.

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[1] Haney, Walter. The Follow Through Planned Variation Experiment Vol. V, The Follow Through Evaluation: A Technical History. Pp. 157-159.

There were exceptions. Sponsors of models with specific easily described teacher-behaviors and even a "script" for specific academic activities had less trouble getting teachers to behave as directed than models that depended upon relatively vague changes of attitude and philosophies. It was evident from the national evaluations of the Planned Variations that the most prescriptive classroom models were more uniform across sites and the children averaged higher academic achievement scores. But behaviorist models were not popular with the majority of the educators present at the Portland and Philadelphia meetings, and so problems of implementation remained of great concern.

Responding to the problems of implementation and replication, one Portland work group proposed an entirely new format for the next Follow Through research project. It would begin with a search for exemplary programs, and proceed to a detailed description of the successful programs and the factors which might help explain their success. Out of this would develop a verifiable theory of effective early primary education, including the necessary adaptations to student differences and other system variables. The project would continue to a study of implementation and end with a study of the factors that make for effective replication. Why start again from the beginning? Walt Hathaway, the Director of the evaluation program of the Portland Schools, and of the work group, explained:

> Without a well-defined accurate description of the model we don't know what happened or why it happened. Without a look at the context of where it happened and how it happened, we don't know what went into making it happen.
>
> We must know the "where, how and what" to know if it can be transferred from one site to another or if it can be generalized at all. So after we understand the model, we have to take a look at "receptivity" of the receiving system (the management, the staff, students, parents, etc.).

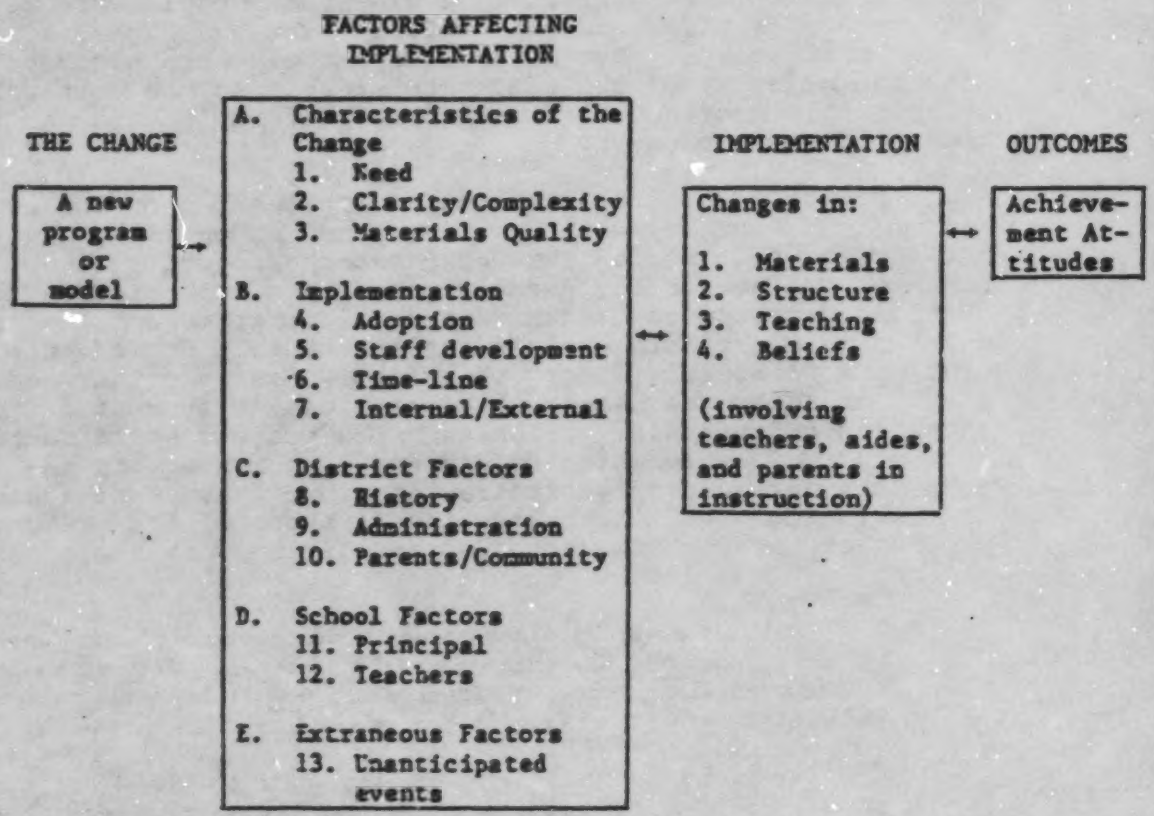
Hathaway called it a "holistic model" of systemic change.

This group's recommendation that the "ecology" of the successful site be thoroughly described was elaborated upon by the Austin conferees. They concurred that detailed descriptions of implementation, including "climate" of the school, the school district, and the community, made replication more likely.

The complexity of the problem of implementation was graphically depicted in Austin by Michael Fullen from the Ontario Institute for Studies in Education:

THE PROCESS OF IMPLEMENTATION

(Michael Fullen, Ontario Institute for Studies in Education)



"Implementation means changing practice, and its complexity is suggested by the diagram above. The mind will be excused for boggling at the problem, since it includes all of the above issues and more: measuring all the inputs, measuring the various aspects of implementation, testing for a variety of outcomes, interrelating all three sets in order to compare very different FI models and going beyond that to compare them with non-FI classrooms. My own approach would be . . . (1) to develop common measures of the inputs, (2) to explore some common implementation measures, but also rely on custom measures of implementation unique to each model and (3) to use some common outcome measures, but also rely on some custom measures unique to each model which will contribute to broadening the range of outcomes measured."

What is the Teacher Doing?

Also struggling with the problem of implementation, Chad Ellett from the University of Georgia proposed a plan (designed with researcher Margaret Wang from the University of Pittsburgh) which would define the "critical dimensions" and provide "scaled descriptors" for each aspect of a program under study -- to enable an evaluator to decide whether a teacher was actually implementing a program and how.

With the observation instruments proposed by Ellett and Wang (or comparable ones), an observer could determine if the teachers' behavior conforms to the ideal teacher-behavior for that instructional model. Such instruments would also help administrators assess the effectiveness of support systems for teachers. By charting classroom behavior before and after the teacher participates in workshops and conferences, it would be possible to determine if change has occurred.

But change in teacher behavior is generally only an interim goal. The ultimate goal is change in the children's classroom behavior and academic achievement. Clearly we must know not only what the teacher is doing but what the children are doing. We assume the teachers' behavior will affect the group's behavior. We also know that all children do not respond to a teacher the same way, a point driven home by Technical Advisors Gary Borich of the University of Texas and Robert Floden of the University of Michigan in their expert presentations at the Washington meeting.

What Are the Children Doing?

Looking at the children isn't as simple as it sounds. Both Floden and Borich showed why choosing an approach compels evaluators to make "trade-offs." Such a choice must be made when deciding whether to observe a small number of youngsters who represent different learning types or the whole class.

Watching a few select individuals has certain advantages: it enables the observer to make refined judgments which can help a teacher predict what type of children the program works

best for and in what circumstances. The observer will know when Alice is inclined to daydream and what helps her focus; what subject is easy for Charles and whether success energizes him; how a lively pace affects Daniel and children like Daniel.

But it presents problems too. If the focus has been on six children, and one sixth of them leaves, the study has considerably less validity.

So, rather than take that chance, the observer might choose to look at every other child in a classroom. While the observation will not be sensitive to how specific instructional techniques affect certain types of children, the broader base of data gathered can be used to determine the overall effects of a program. The observer of 28 children will not know if Billy's nodding behavior is merely learned "nodding behavior" or a sign of serious concentration, but will have a sense of how the class, as a whole, is responding.

The choice about <u>whom</u> to watch is relatively simple, compared to choosing <u>how</u>, <u>when</u>, and <u>how much</u> to watch, according to Floden and Borich.

If an observer charts (or photographs) what each child is doing every 15 minutes over the course of one hour, and, after 14 minutes of concentrated work, Carol notices her untied shoelace, is that a fair measurement of her general focus? If after a chaotic transition, the teacher calls the group to order at the moment it is time to record the observation, is that a gauge of their general involvement?

Should moments that a child is looking out the window gathering thoughts be recorded as a "miss" in focus when it results in intense writing for 10 minutes after that? If that <u>is</u> actually engagement, would it be so seen by an observer who was charting all 30 children in a room?

What instrument for recording shall be used? How many items should be on the talley sheet? How inferential should the items be? Should an observer visit 10 consecutive days for 2 or 3 hours at a time to see how children function day after day or space visits on a weekly, monthly or bi-monthly basis? According to Floden, results are influenced by the day of the week, the time of year, the outdoor temperature, the amount of rain, etc. How should a program observed in January be compared with one observed in May?

To conclude, while any reliable and valid research study requires accurate assessment of implementation, such an assessment (particularly when a large group of children is being studied) is difficult. While it is certainly easier to ignore individual differences and treat children

as a group -- strong positive and negative responses to a teacher's management style can be missed if responses are averaged out. By washing out the real effects of the program on particular types of students, the research could incorrectly assume that the program has little or no impact, when in fact it may work superbly for some children and be dreadful for others.

A Grab-Bag of More Problems

Evaluation problems only begin with the questions, are teachers implementing with sufficient fidelity and are children responding in some consistent way. Researchers at the Pittsburgh, Austin and Washington conferences posed other equally seminal questions, such as:

How stable is the student population?
How appropriate is the content and format of the test instrument?
Does the program match the children's educational needs?
What is the result of the program over time?

- Robert Floden pointed out that in some communities the target population turns over at a rate of 100%. If the schoolchildren who begin the program have moved by the end of the school year and children from other schools have replaced them, how should an evaluator treat their end-of-the-year scores? What percentage of the year in-class constitutes sufficient exposure to a program to warrant score-inclusions when averaging results?

- Children can be "disoriented" by changes in teaching techniques, teacher expectations and classroom management according to Leigh Burstein from UCLA. His insight raises such questions as should the effects of change be taken into consideration when monitoring test results? Should we treat the test-scores of children who have been in a program over an extended period separately from those who are "disoriented" because they are new to the program?

- Language proficiency or the lack of it distorts the achievement results of bilingual children, according to Ernest Bernal of Creative Enterprises, Austin, Texas. As he pointed out, a program will appear spectacularly successful when non-English-reading children finally learn to decode the tests. And, alternately, it can appear to be dismal failure if the children do not acquire the reading skills needed to take the tests. Bernal's presentation raises the question, should

non-English-proficient children be given different tests to make their scores reflect their real accomplishments? If impossible, should their test results be pulled from the groups and handled differently?

- Learning strategies "invented" by some children in their early primary years are found to be dysfunctional when additional learning demands are made, according to Dalton Miller-Jones from the University of Massachusetts at Amherst. At that point, test scores may drop precipitously. Jones finds this is particularly true of "minority children." Based on Jones' findings, one wonders if a superior educational approach might not be underrated, if those who expect continued progress don't take into account the need to fashion new learning strategies at this critical juncture.

- Standardized tests are frequently not an accurate gauge of a program's effectiveness according to Floden and Richard Jaeger from the University of North Carolina. Both studied the literature and found that it is likely that no more than 40% of what is taught in class will be reflected on the standardized achievement tests (the range is 0% to 60%). If more than half the test questions are inappropriate (even when dealing with a traditional arithmetic program), why not give tests which do measure what is happening in the classrooms? Because, according to them, locally designed tests are difficult to compare to nationally normed tests. It would be almost impossible to compare alternative instructional programs. Could we circumvent the problem by judging the amount of change in the children, rather than their absolute scores? Not easily, because as David Berliner and others have pointed out, rates of academic accomplishment depend on where the children begin.

- Some programs appear to be enormously successful at teaching decoding and computation but, according to critics like Lorraine Smithberg from Bank Street in New York, they do this by sacrificing understanding which must be the basis for continued cognitive growth. The designers of primary programs which emphasize hands-on experience, discussion, dramatic and block play, group trips and personal writing (e.g., the Bank Street method and methods based on Piaget's work) assert that the real test of a program's effectiveness lies in the capacity of the children to demonstrate as they mature. Are they developing analytical skills? Can they take control of their learning and their lives?

Robert Egbert, the former director of the Follow Through program, advised that children be followed through the years to determine a program's long-term effect. He proposed that in addition to keeping tabs on their academic achievement through the years, records be kept on how many children must be placed in remedial classes or held back, how many drop out, get involved with drugs, engage in vandalism or other anti-social acts.

HOW RESEARCH STUDIES AFFECT ADOPTION AND ADAPTION

What do administrators need to know about a program before they try to adopt it or adapt it? Most researchers believe they need to know:

If the program was implemented
How it happened
What personnel were involved
What the children were like coming into the program
What they were like after being exposed to it
How they shaped up in the follow-up studies
The economic, social and ethnic characteristics of the community
The ecology of the school.

Some researchers, like Jane David of the Bay Area Research Group, hoped that in the upcoming round of research, the same model would be implemented in a number of sites with different eco-systems so comparisons could be made.

Although their plans differed, researchers (like David, Ellett, Fullen and Hathaway) who recommended elaborate implementation studies begin with two common beliefs: one, the way implementation had been approached to date was inadequate, and two, the right data and "better science" (a phrase introduced by Yale's Edward Ziegler) would yield information that would make replication possible. Even if schemas for getting a grip

on the variables (like Michael Fullen's, pg.[26]) resulted in an exceedingly complex formula, still one could imagine that in time, the variables might be sufficiently catalogued and sorted by data banks to be useful to school policy makers.

But there were a small number of maverick researchers who expressed strong doubts about the wisdom of attempting a "scientific" analysis of the factors.

Eva Baker from UCLA argued that finding a single set of instruments that could apply to many schools was less important and less rewarding than studying what was happening in any single school. To her mind, instruments designed to be broadly useful usually distort the picture for a local site. Therefore, studies should be content to feature and emphasize what teachers in that particular system did to improve their work.

Others, like Ernest House from the University of Illinois, and Yvonna Lincoln from the University of Kansas, challenged the use of "hard science" in the search for stable truths in human affairs. In fact, they challenged the very idea that there were any stable truths to be found in human affairs.

House opened his Pittsburgh presentation with a tale of his two children. Exposed to "the same" innovative reading and math programs in the same school, one child flourished, the other was bored. Why didn't they have similar reactions? The children came with different learning characteristics and expectations. By the time his second child went through school, the original teacher was replaced by a younger, less energetic teacher who was less committed to the program of instruction, explained House.

His message was clear. If two children from the same family, attending the same school, could have such different reactions, would even a thorough analysis of a program be of practical use to disparate districts? Since local factors (staff, children, community) all affect a program, it seemed unlikely that a universal prescription for success could be formulated even out of superb data.

The lively discussion that followed House's presentation in Pittsburgh (and a similar if milder reaction following Yvonna Lincoln's presentation in Washington) focused attention on the two contesting positions in the pantheon of the research community. One group trusted the scientific method to find an answer to any question -- if only the right question and the right data could be marshalled. The other group

trusted people in a school system to make intelligent decisions based on their experience and aided by an anecdotal history of previous experiments.

At the Portland and Philadelphia conferences it was clear that although many humanistic model-makers were at odds with their more determinist counterparts in matters of program development, they shared the belief that "their" program could serve all the children best, if only done "right."

In contrast, some outspoken presenters took issue with the search for any "right" way:

- Eugene Glass from the University of Colorado, Boulder, doubted that any formula program ever did much good.
- Thomas McNamara from the Philadelphia Public schools thought the secret lay in putting new methods "on trial" where a local synthesis of the points made by advocates and dissenters would result.
- Susan Loucks from the Network, Inc., Andover, MA, proposed that innovation requires a process of absorption which starts as curiosity, moves to fidelity, on to fine tuning, and finally to adaption. Her Concerns Based Adoption Model, while it doesn't specifically challenge the search for scientific truth, does suggest that the secret of successful implementation lies in the wisdom and instincts of the teachers -- not in research data.

The unsettling challenge of House, Lincoln and Glass was a formidable one. While their more traditionally oriented research peers were not won over by their arguments, their view was accorded considerable respect. One observer was startled that researchers faithfully "married" to the scientific method put up little resistance to the radical critiques of it.

The Pittsburgh critics of the scientific approach were not the only group to take issue with traditional research. Practitioners in Portland also spoke out against "the collection of massive amounts of data which has in the past put an unusual burden on the

school system and on teachers." They suggested that principals protect teachers from evaluation efforts that "have nothing to do with school reality so teachers could be free to concentrate their best efforts on teaching." Eva Baker at a later meeting also took issue with the "necessity of extended research that did not directly help teachers and schools do their jobs better."

Spreading the Word Effectively

In the end, while the amount of time and energy which should be committed to implementation studies and site analysis -- the content of reports to the field -- remained moot, the need for effective communication was incontrovertible. Everyone easily agreed (with work-groups on communication) that reports should be tailored to meet the needs of each audience. Specifically, they suggested:

- When addressing the general public, focus on outcomes and use simple percentages rather than complex statistics. Make the report as clear as a Reader's Digest piece.

- When addressing the educators, parents and community decision-makers, be specific about student outcomes, cost-effectiveness, and how the "target" populations will be selected. Tell them what teachers will be expected to do differently, demonstrate the programs' operation and materials and, above all, pitch the talk at the language level of the group. Avoid jargon.

- When addressing district administrators, be specific about expected outcomes and present in detail the additional requirements or impositions of the program. Demonstrate the materials and present the research results in nontechnical visual way.

- When addressing state Departments of Education be specific about how the program will or will not be in compliance with state regulations. Tell them what kinds of dissemination the district will engage in, and, if possible, get a district superintendent to do the presenting.

- When addressing federal administrators, be specific about the cost-effectiveness and how the program is to be monitored at the site level.

When possible, have an administrator address administrators, a teacher address teachers, etc.

THE NEW FOLLOW-THROUGH PILOT PROJECTS

Guidelines for the Projects

The NIE's Request for Proposal (RFP) issued on June 10, 1981 specified that proposed projects serve students in grades K-4 during the 1982-83, 83-84, 84-85 school years. Activities prior to the 82-83 school year were to be planning, base line data collection and other preliminary tasks. The RFP asked that the projects generate information to help other school systems consider whether to adopt all or part of the program, by providing the following kinds of data:

- A description of the project including the planning process, the implementation process and its major characteristics
- Student achievement in reading and mathematics
- Student and teacher use of instructional time
- Attendance
- Costs
- Student placement, promotion and retention
- Parent, student and staff opinions about the project/school. It was required that each school district provide two schools (small districts could join with another district to present a proposal) and all children in grades K-4 at each school be involved in the project. The schools were to be selected because at least 50 per-

of the children had Head Start or similar preschool experiences.

Recognizing the challenge of keeping costs for such a project realistic, in view of federal and local cutbacks, and to assure that the new projects received a fair test of their effectiveness, the NIE mandated that students involved in the projects should not receive compensatory services funded by other state or federally supported education programs.

In the summer of 1981, after the Institute's RFP stimulated nationwide response, contracts were awarded to:

The Cotopaxi (Colorado) Consolidated Schools for a joint project with Westcliffe;

The Napa County (California) Office of Education for a joint project with Napa Valley and Vacaville:

The Oakland (California Unified School District;

The Detroit Public Schools.

The NIE furnished each district in the amounts below for the costs of developing implementing and executing its pilot project over a five year period:

Detroit $638,037

Napa $404,531

Oakland $666,072

Cotopaxi $240,311

The average yearly per child cost over the districts' usual allotment is $153 -- an amount below the average per child expenditure in Title I of the Elementary and Secondary Education Act, which is the nation's largest compensatory education program. It is also well below the per child costs of existing Follow Through programs.

The Institute also arranged to have six experts in staff relations, program development and evaluation on-call to the districts to help them plan their projects. For four months these Technical Advisors would be available without cost to the districts for occasional visits and phone consultations.

A. The Detroit (Michigan) Project

Searching for cost-effective inservice experiences which would lead to more effective teaching, the Detroit schools proposed four levels (to be used singly or in combination)--all of which rely on peer support:

- Knowledge of Theories and Practice: Teachers will be guided to materials and articles in the school library related to their areas of difficulty. This could range from an introduction to the theory and practice of Mastery Learning or Direct Instruction, to a review of classroom management techniques such as a focus on classroom discipline or the physical set-up of a classroom.

- Observation to Correct Problematic Behaviors: Teachers will observe others who are identified as highly skilled. In addition teachers may be offered the chance to view themselves on video tape so they can critically assess their own teaching progress.

- Practice in Simulated Conditions: Teachers will be encouraged to try out specific behaviors with small groups of students under circumstances which do not require the management of an entire group.

- Coaching: A demonstration teacher will be available to coach teachers on a one-to-one basis.

At the heart of the Detroit plan is a Mirrors and Monitors process which would be used to assess individual teacher's initial needs as well as needs that remain after each level.

- All teachers in the program, working in groups of two to five, will observe one another and meet to discuss:

  a. Their major instructional goals
  b. What they are learning from trying new teaching techniques, from workshops and from readings
  c. The results of observing one another teach (how much time their partners are on-task and off-task).

Sheldon Sofer, project director, indicated that the classroom observations proposed in the Mirrors and Monitors plan initially upset many teachers. It took time to convince them that the information would be kept confidential and would not be used in any formal teacher evaluations. Only three people will see the classroom observations -- the teacher being observed, the observer (teacher observing) and the data collector.

Detroit's Evaluation Plans

Both scientific and naturalistic inquiry methods will be used to improve inservice training and to document the program. In addition Detroit will provide quantitative and qualitative information concerning the nature, effectiveness and cost of each of the four types of teacher training used.

Questions to be addressed are:

- Do teachers increase their on-task behaviors?
- Do teachers decrease their off-task behaviors?
- Do students increase their time-on-task?
- How difficult do students find the activities in which they are engaged?
- Are students engaged in low error-rate activities?
- Is the time allocated in reading and mathematics spent on outcomes which are valued and addressed in the outcome measures?
- What is the relationship between student time spent learning particular topics and student learning of those topics?
- Do project students make significant gains on the achievement measures?
- Do project students gain more on the achievement measures than students at the "comparison" schools?

In line with suggestions made by Yvonna Lincoln, one of the Technical Advisors provided to the districts, Detroit has engaged an Oral Historian to (a) document project activities (including meetings and training sessions), interview project participants and others felt to have a stake in the effort; and (b) to improve the interventions as the project unfolds.

"The central purpose of this historian's work will be the creation of a real history, a written narrative," according to Lincoln. Commenting further on the purpose she explains:

"The end product should demonstrate how it was done, given this particular social context, and should assist both project directors here and school districts elsewhere."

Another suggestion made by Lincoln, who favors naturalistic inquiry, was that Detroit use the library checkout system to provide an unobtrusive measure of the effectiveness of the workshops to stimulate further interest.

In addition to keeping a check on who takes out the materials, the library will collect comments by teachers who have already used the file and make them available to others.

Achievement Data

Detroit plans to use the Metropolitan Achievement Test (MAT) which they feel "is a good match for the Detroit Curriculum." But to be more precise about the effects of their program, they also will select subsets of items from the MAT, and relate their outcomes to the time spent on these topics in class by "engaged" students.

Teacher-Focused Instruments

Teachers on-and off-task behavior will be measured using two instruments: the Classroom Snapshot Form developed by Jane Stallings, and a Detroit-developed coding form which lists on-task and off-task teaching behaviors. Every two minutes during a 50-minute math or reading class, coders will record what they have observed during the previous two minutes. (The same form will be used by teachers as part of the Mirrors and Monitors intervention.) The snapshop instrument will be administered twice a year; the Detroit-developed form twice a month.

Student-Focused Instruments

Four types of data will be collected to monitor student behavior: student on- and off-task behavior, student attendance, error rate on seat-work and time allocated to the study of selected reading and mathematics topics.

The Detroit seating chart used for on- and off-task behavior will be completed every two minutes during the observation period. In addition to coding individual students, the form will also provide space for the coder to indicate the subject (reading or math) and the topic of the lesson observed.

Analysis of Findings

Acknowledging that achievement is likely to be influenced by how prepared students are when they enter the program, Detroit will group tests for analysis by students' entering level (high, medium and low). They expect that students who enter low will make greater mastery gains.

B. The Cotopaxi (Colorado) Project

School systems of fewer than 300 students from kindergarten through high school make up one third of the nation's schools. Yet while more than one million students in the United States are educated in systems of this size, most experimental programs have neither been designed to meet the needs of these children, nor tested in these schools.

Cotopaxi, with 225 students in grades K-12, had to combine with Westcliffe, with a total of 300, to amass a test group sufficient to qualify for this contract (two classes per grade).

Rising costs (particularly for transportation) in communities where 70 to 90 percent of the students are bussed to school every day, are cutting into the funds available for instruction. Sensitive to the need of the communities to save one-fifth of their transportation, heating, electricity and maintenance costs, the Colorado State Board of Education offered the option of a four-day week to rural school systems like Cotopaxi and Westcliffe in 1980.

Cotopaxi jumped at the offer. Because they were already losing classroom time to sports events (regularly scheduled for Fridays), they saw the four day week as a way to increase academic teaching time and save money.

Two primary goals drive their effort in the new FT project:

1. To improve student achievement

2. To collect and analyze the necessary data to determine the viability of the four day school week.

To achieve their goals, they have set the following objectives:

- To reduce and simplify administrative tasks of teachers by streamlining and consolidating forms, etc., so teachers can focus on instruction

- To eliminate wasted time in classrooms by training teachers in the mechanics of classroom management, i.e., smoother transitions, more effective discipline techniques

- To increase the effectiveness of the allocated academic time by defining what it is that the children should be learning. The development of a K-6 curriculum guide which sets grade tasks and criterion-referenced tests which help teachers assess their classes' progress are two of the first orders of business.

To help teachers make the most of their contact-time with the children, the Colorado project will conduct the following activities:

1. A consultant employed as a data collector will visit the classrooms to observe and record Engaged Time. These observations will provide an insight into the causes of low engagement in the target schools, such as lax discipline practices, lack of motivation, untidy transitions, poor organization of material, etc. At least 10 day-long workshop sessions for teachers and administrators run by outside trainers will focus on the most needed correctives.

2. After each inservice training session the data collector will observe the teachers in action. The notes from these observations will be passed along to the principals and teachers and form the basis of the one-on-one conferences between principals and teachers. Together they will discuss the ways the teachers might improve their approaches.

3. Teachers will be given the opportunity to visit other classes throughout the area.

David Trujillo, Superintendent of the Cotopaxi schools noted that Cotopaxi "has an advantage over most school systems that must deal with union rules and a five day week, because teacher attendance at staff development activities can be mandated one Friday a month. Thus we bypass the problem of having to make complex or expensive alternative plans to 'cover' the classrooms of teachers pulled out for training."

Tests and Test Analysis

The Iowa Test of Basic Skills, the instrument of choice for the Cotopaxi project, will be used to gather baseline data and to monitor the students throughout the project. It is expected that the average grade equivalent score in reading and math for all students will increase at least one grade-level for each year of the project.

A secondary hypothesis relative to achievement is that the interventions will have an equal effect on students from different ability groups. To ascertain if this happens, students will be divided into ability groups and their scores averaged and analyzed by group.

They also hypothesize that there will be a trend for students to move to higher ability groups throughout the project. To monitor this, evaluators will look for spikes or dips in the achievement ratings or jumps for each group. The bi-weekly achievement ratings used to monitor the students will also provide information as to the effects of the teacher workshops.

Data on Engagement Rates

Observations will be bi-weekly and two instruments will be used. One will chart engagement in academic activity, the other engagement in nonacademic activity.

The observer who will be in class for a full day will record observations every five minutes for academic times and every ten minutes during activities related to other content areas. The school day will be divided into five periods and the average engagement rate will be calculated for all students in each of the five periods.

To determine if there is an "interactive effect between student ability level and time of day," Cotopaxi will see if students of varying ability groups behave differently throughout the day.

Curriculum Analysis

Since one of Cotopaxi's objectives is to improve curriculum, both the procedure used to analyze the existing curriculum and the process used to change it will be recorded.

Data on Teacher Behavior

In order to determine to what extent the workshops change teacher behavior in the areas of time management, discipline, and classroom structuring and organization:

1. Teachers will be monitored bi-weekly,
2. They will receive reports and confer with their principals,
3. They will attend inservice workshops,
4. They will be monitored again.

C. The Napa (California) Project.

Napa County's Professional Development Center devised a plan which draws on effective teacher and administrative practices from a number of research projects. They hope, through their study, to identify the critical factors which are positively related to the improvement of instructional processes, academic learning time and student achievement. The project approach addresses three major areas:

1. Staff Development
2. Instructional Leadership
3. Articulation Around Instructional and Curriculum Issues

According to Pam Robbins, Project Director, the plan calls for:

- Teacher training which systematically moves from the presentation of theory, to the demonstration of skills, to practice, to application of the practice in the classroom, to feedback about performance and in-class coaching.
- "Directed" discussions between staff and local consultants (special education teachers, reading specialists, county level curriculum consultants and Head Start personnel) focused on the specialists' most effective classroom management strategies to determine tasks appropriate to each child and encourage students to stay on task.

- Instructional Leadership Training which will, among other things, prepare principals to observe lessons, and analyze them according to an established framework. Principals will be trained to look for such elements in the lesson as planning, motivation, teaching to objective, task analysis, diagnosis and prescription, monitoring student achievement and providing feedback to the learners, as well as how the lessons comport with what we know about the affective and cognitive development of children.

The Napa Plan is extremely ambitious, as evidenced by these sample questions that will be addressed by the evaluation:

Input

How is the program planned? By whom? What process? What goals?

How is the program implemented? Training content, format, materials, personnel, coordination, activities?

What changes were made and why?

What is the cost of the program?

Site Characteristics

What are the characteristics of the sites: i.e.,

Community (ethnicity, rural/urban, etc.)?

Teachers (experience, age, credentials, training)?

Students (ability, LES, ethnicity, etc.)?

Principal (experience, age, time at school, training)?

How have the site characteristics, curricula, and supplemental programs changed over the four-year period?

Feelings of Participants

What are the feelings of the participants toward the program? Developers, trainers, staff, principal, community, student reaction/attitudes?

Principal Training Effectiveness

How effective is the principal clinical supervision training? Ability to take anecdotal record of teaching, analyze a teaching episode, diagnose teaching and write objectives, select appropriate conference mode, plan follow-up activities?

How effective is the principal team-building training? Planning skills, decision making strategy selection, use of problem solving model, allocating appropriate resources?

Staff Training Effectiveness

Does articulation occur between parents and staff within and between schools and grade levels?

What kinds of staff development have teachers had?

Do trained staff members use the recommended strategies for increasing ALT?

Do trained staff members use the suggested classroom management strategies?

Do trained staff members use the instructional processes that were taught in the inservice workshops?

Do teachers allocate more time to academic instruction?

Pupil Outcomes

Do teachers have greater overall rates of pupil engagement and success rate than they did before the training began?

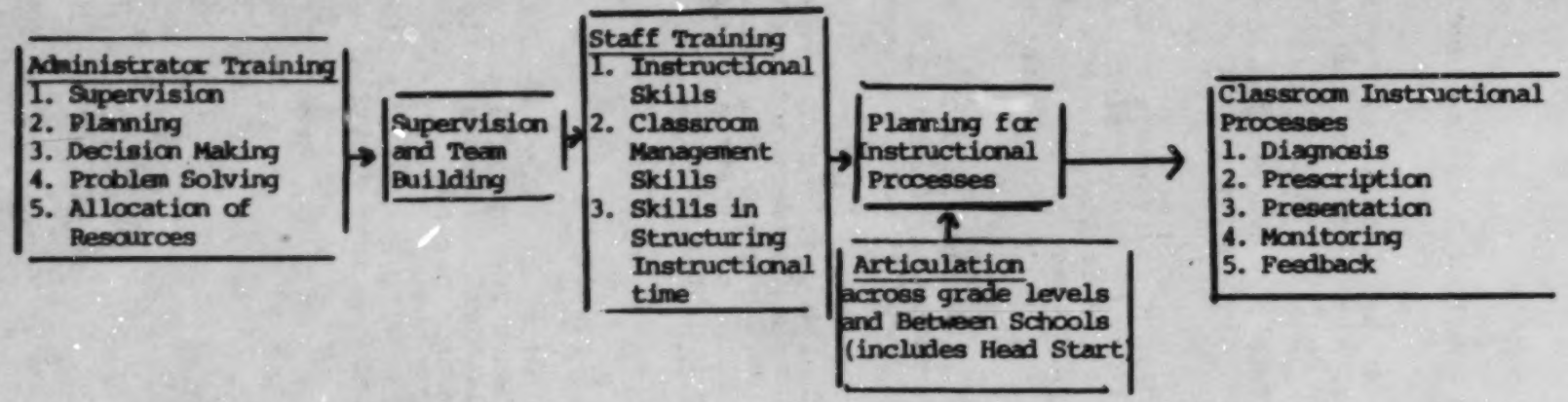
Has student attendance changed?

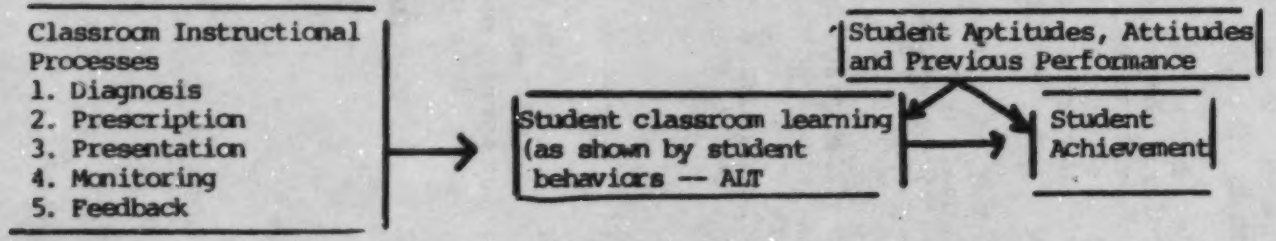
Do students make greater yearly reading and math gains than they did before the training began? (In May of each year are achievement gains greater in the last two years?)

Broad Effects

What are the disadvantages and advantages of the program as seen by developers, implementers, trainers, staff and principals?

The total model is described by the following diagram which illustrates the relationship between staff development, instructional leadership and articulation and the prime focus: engaged learning time to improve the achievement of students in the areas of reading and mathematics





The Napa approach, which emphasizes staff development, instructional leadership and articulation, aims at producing the teacher behaviors identified by the Beginning Teacher Evaluation Study. The goals are to increase student learning time and raise student achievement scores.

The Instruments

Napa has found and developed numerous tools for collecting information including:

- Extensive interviews to ascertain teacher and administrator feelings and to learn what they want out of the program;
- The Community Demographic Form and Student Demographic Form to provide data on the site characteristics and student characteristics;
- Locally-developed questionnaires to teachers to determine how often they are visited by their principals, and the number and nature of the follow up conferences; to assess the organizational climate in the schools, and skills that staff have learned during training which they find most useful.

In addition a number of observation instruments will be used such as The Time-on-Task Form, the Secondary Observation Instrument, Five-Minute Interaction, and Snapshot form developed by Jane Stallings.

Napa will use the reading and math portions of the Stanford Achievement Tests in one school and the California Achievement Test in the other. They are considering adding the Metropolitan Achievement Test but because one school has "matched" its curriculum to the MAT and the other school has not, the results may be inconclusive.

Observation Schedule

Each teacher will be observed with all the observation instruments in one-and two-hour segments during April and May each year. In all, each teacher and class will be observed for eight hours during the spring data collection period.

Time-on-Task and Implementation will again be observed on two consecutive days in late October and late January.

D. The Oakland (California) Project:

"We propose to improve student achievement through a staff development program focused on leadership," said Marilyn Matsumoto Jones, principal investigator. "Our goal is to strengthen those administrative and supervisory functions that cause schools to change."

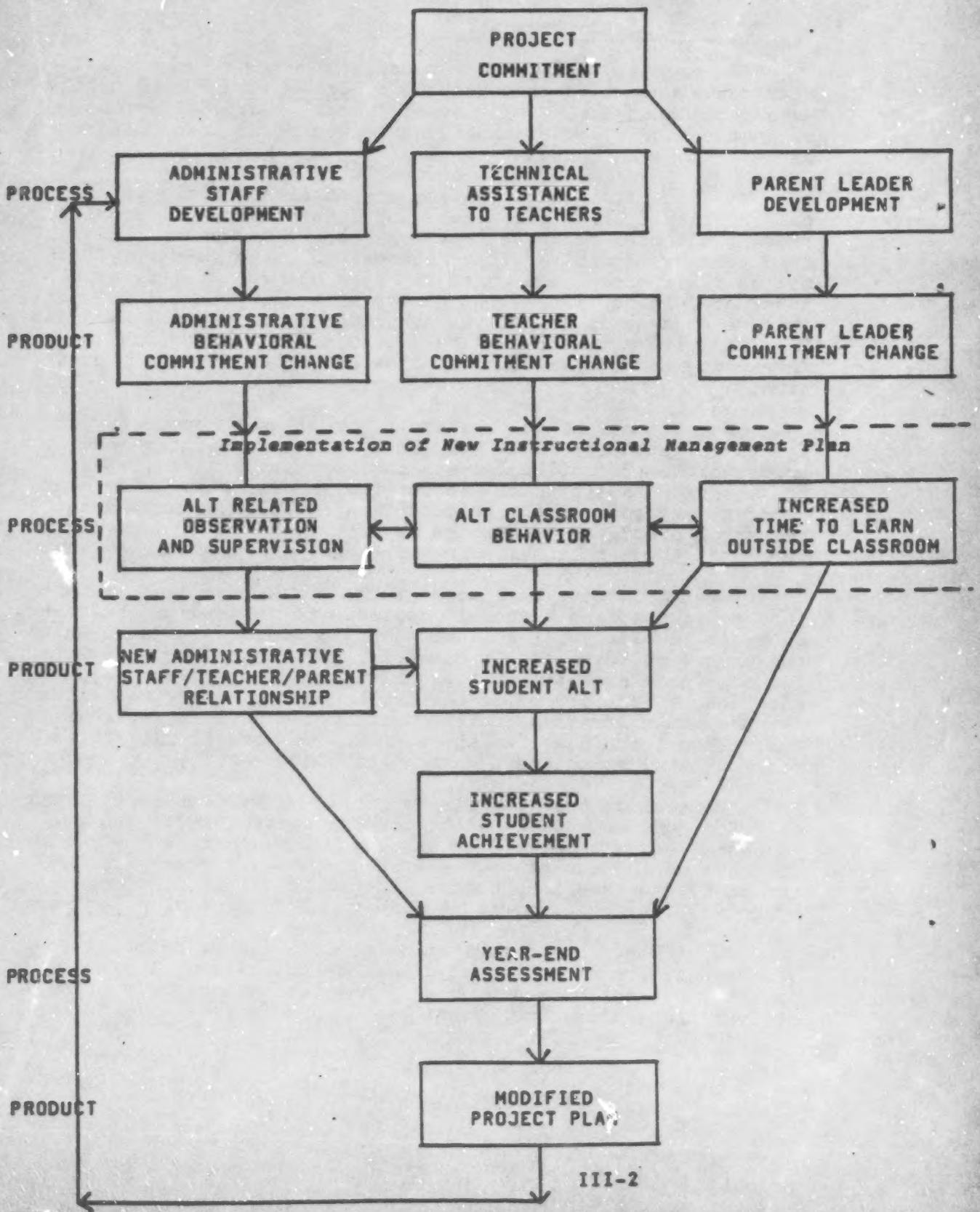
To accomplish this, the leaders of each school (principal, assistant principal, state and federal project director, reading and math resource teachers, parent/community liaison, head teacher, School Advisory Council and other advisory committee chairpersons and union representatives) will first be instructed in how increasing Academic Learning Time (ALT) can improve student learning. Other potent concepts will be drawn from the wisdom that has emerged from studies of effective inner-city schools and from studies of successful implementation.

"We want our school leaders to create new support systems for their teachers," said Ms. Jones. "Their teachers need opportunities for collegial sharing, for supportive feedback and technical assistance. We don't mean criticism -- we mean concrete suggestions that encourage adaptation of successful classroom practices. Teachers want to succeed -- they want to feel that they are growing in competence and professionalism.

"Over and above this work at the classroom level, we intend to take a 'whole school' approach to focusing on learning. Everyone involved will be encouraged to discover ways in which the entire building can be managed better in order to get this focus. For examples: what distractions do classroom teachers encounter in the course of the day and how can they be avoided? Can the administrative routines within the building further strengthen learning? Can the schedule be more flexible? Is too much time being spent on non-learning tasks?

"We realize that there's no single answer for every teacher. Some of them will want to develop strategies to improve students' success rates, for instance, while others may prefer to focus on the use of new materials. But whatever strategies the individual teachers choose, they will all derive from the school-wide -- and fervent -- commitment to improving learning."

In both of the participating schools the principals, resource teachers and selected classroom teachers will plan staff development workshops and observe K-4 teachers to help them perfect their classroom techniques.


PROJECT COMMITMENT
PROCESS
ADMINISTRATIVE STAFF DEVELOPMENT
TECHNICAL ASSISTANCE TO TEACHERS
PARENT LEADER DEVELOPMENT
PRODUCT
ADMINISTRATIVE BEHAVIORAL COMMITMENT CHANGE
TEACHER BEHAVIORAL COMMITMENT CHANGE
PARENT LEADER COMMITMENT CHANGE
Implementation of New Instructional Management Plan
PROCESS
ALT RELATED OBSERVATION AND SUPERVISION
ALT CLASSROOM BEHAVIOR
INCREASED TIME TO LEARN OUTSIDE CLASSROOM
PRODUCT
NEW ADMINISTRATIVE STAFF/TEACHER/PARENT RELATIONSHIP
INCREASED STUDENT ALT
INCREASED STUDENT ACHIEVEMENT
PROCESS
YEAR-END ASSESSMENT
PRODUCT
MODIFIED PROJECT PLAN

III-2

"We see the assessment process for identifying the allocated time, engaged time and success rates for reading and math now in place as a taking-off point. With that information we can plan a staff development program that will be truly responsive to our local needs," said Ms. Jones.

Many of Oakland's strategies such as documenting the progress of the program in both "naturalistic" and "scientific" modes, involving administrative staff in workshops, making it possible for teachers to monitor other teachers -- parallel those already described for Detroit and Napa. But while Detroit is concentrating on teacher development directly, Oakland is banking on the effect a training program for administrators will have on teachers.

To this end, teachers and principals will work together to set goals, time-tables for those goals, and determine what aspects of ALT they will tackle first and which next.

Oakland is also still trying to work out a plan for parent run home-activity centers. In this plan, two parents from each of the schools would volunteer their homes and work with children after-school for one hour twice a week. The home-activity centers would accomodate approximately eight children for six week periods. Parents would be supervised by a Follow Through trained parent, and would teach the children in their charge games for reading and math skill development.

What Has Been Learned To Date?

The current Follow Through Pilot Project effort has just begun. Thus far its impact on local staff has come from the planning meetings rather than specific training in Academic Learning Time. But even the activities to date have stimulated staff. While none of the following reports from the field are astonishing, they are worth noting:

- Each of the Technical Advisors (TAs) provided by the NIE received kudos from the districts. They lauded Gary Borich and Robert Floden for their extraordinary help in finding and designing evaluative instruments, Yvonna Lincoln for being "not only brilliant and inventive in 'unobtrusive/naturalistic'-style information gathering, but also exceedingly knowledgeable about traditional evaluation and research, and willing to switch gears." They felt that Judith Little breathed life into the idea of collaborative effort and David Berliner into the concept of ALT. Dennis Sparks "was the ideal catalyst." "His relationship to people was fantastic." "He really could bring the groups together . . . he heard what others were saying and saw to it that others heard it too."

  None of the TAs were considered superfluous. The only criticism came from one project director who felt that "their usefulness was limited by when they were available ... districts would benefit from their involvement even after the project got officially started." Several districts have arranged to engage some of the TAs on their own as needed.

- Teachers in a number of districts have indicated that although they appreciate the support, which will make them better teachers, they feel it "will take a long time for the training to make up for the loss of a classroom aide." Displaced aides also were upset -- until they were assured they had new placements. Parents regretted the loss of an aide in the classroom, until reassured.

- Cotopaxi's teachers surprised their superintendent by demonstrating an unexpected enthusiasm, commitment and creativity in the planning process. Teachers who had not had the opportunity for workshops before were thrilled at the prospect of inservice training and the opportunity to observe other teachers.

- Napa's introductory sessions were so effective in clarifying expectations and the need for full commitment that

one principal bowed out of the program. His withdrawal testifies to the sensitivity of Napa's trainers who were able to elicit, early-on, the real reactions and doubts of participants and communicate that they could be trusted not to be punitive if a participant was so uncomfortable with the program that he wished to leave.

- As might be expected, the teachers' reactions to introductory workshops and sample visits are idiosyncratic. Feedback in Cotopaxi ran the gamut from very positive reactions -- e.g., "I liked the tour of the classrooms and hearing other teachers' philosophies," and "Great relevancy to everyday nitty gritty in the classroom!" "Lots of new ideas to begin thinking," "Lots of insight to where I am and what I do in teaching -- bringing concrete out of intuition," to "I feel the tours of classrooms are too long, repetitive and very unprofitable." By and large the responses were positive with frustration at having too little time to cover too much, or personal impatience -- i.e., "I feel frustrated at wanting to be able to change and understand faster."

- "Most teachers are simply unaware of the minutes that escape from work. They have been accustomed to think that a quiet room is a working room. They don't notice how they waste the children's learning time. "This project has made us all more sensitive to what a terrible waste it is to take seven minutes to write an assignment on the board while the children all wait 'quietly' and patiently," said Marilyn Jones from Oakland.

- While some districts intend to provide the training and the support systems as a matter of course, Detroit has decided to provide clear targets and ask teachers to find the way to meet the expectations. "If teachers are spending over 5% of their time on management -- it's too much. If less than 50% of their time is on direct instruction -- it's too little. And if students are engaged less than 80% of their academic time, reforms are needed," declared Sofer. "How teachers get the skills is their business as long as they keep improving until they meet the requirements." Naturally, Detroit has a program in place to help those who need it, but if a teacher is already meeting expectations, she could forgo the interventions.

- Teachers in both Napa schools were apprehensive at first. But after the "retreat," they have become more familiar with the goals of the project and, with great optimism,

have begun to make plans. Said one teacher, "We're excited by the notion of being involved in a research effort and doing everything we can to keep this alive. We know it's the planning year but we're anxious to get into it." These same teachers have set aside one school bulletin board for posting reactions to reading, ideas about implementation and notes from their partner school regarding their progress and questions.

- "We're running into some difficulties with developing a sufficiently sensitive tool for observations," said Oakland's Jones. "The problem we all have to face when we attempt to chart a teacher's reactions to children is that there are many non-verbal communications which just won't be picked up by an outside observer, but which the children understand full well. A nod or a smile from one teacher means 'that's a great answer.' The words would be superfluous. And some teachers can glance over at a student in such a way as to demand attention -- words are often unnecessary."

- Sheldon Sofer reports that in Detroit the spin-offs have been most heartening. A ninth grade reading program is interested in using their observational instruments to increase the awareness of teachers of their behavior, and to increase academic learning time.

- Several other Detroit elementary schools also have shown interest in replicating the mirrors and monitors project, although they will do so on their own, since they don't want to give up their classroom aides.

AFTERWORD

Exectations can energize. Without them we might be content to drift along aimlessly as persons, and as a profession.

Teachers become powerful practitioners when emboldened by the expectations of their administrators. Children who, told repeatedly by their teachers that they can, and should -- do!

But presuppositions can stymie us -- making progress less likely. In compensatory education one such common presumption has been that quality education for disadvantaged youngsters has to have a high price tag. The Institute has challenged that belief by suggesting otherwise. This challenge may be one of the most important aspects of the Follow Through Pilot Projects as financial resources for the education of low-income children gets scarcer.

Other presuppositions that have been challenged by the work reported herein are:

- There was the presumption on the part of some that the 'feds' would "continue to develop impractical programs in-house and then seduce 'hungry' professionals to'buy in.'" But this time government people listened to practitioners and researchers in the field before developing research guidelines. The result seems to be a pragmatic and affordable approach and a new expectation for collaborative goal setting.

- There was the presumption that researchers and school people would continue to talk at or past each other. But instead they talked with each other. And a new expectation emerged that a true conversation resulting in a workable amalgam of approaches can be the norm.

- There was the presumption that most teachers would fight to keep their doors closed and their autonomy intact. But in fact, teachers who understand the benefits are opening their classroom doors to supportive peers and principals. And if this new expectation opens doors across the country and replaces isolation with wholesome collaboration, that will be another breakthrough.

If the disadvantaged youngsters in these pilot schools become competent learners despite the cutback in funding, and the programs are sufficiently well-documented so they can be replicated by other communities, that will indeed be a most important milestone in the history of public education reform.

VI. LIST OF BACKGROUND PAPERS

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OAKLAND

	1	2	3	4	5	6	7	8	9	10
CLASSROOM COUNT										
Total # Children										
CLASSROOM NOISE LEVEL										
High										
Medium										
Low										
Silent										
INSTRUCTIONAL SETTING (NO.S)										
Whole Class										
Large Group (9-)										
Small Group (3-8)										
Individual or pair (1-2)										
NON-INSTRUCTIONAL SETTING										
No. of Students off-task										
TEACHER PRESENTATION										
Concept explanation										
Task/Behavioral Expectations										
Question/Answer Dialogue										
Student Activity										
No. of Students off-task										
TEACHER MONITORING										
Asking questions										
Answering questions										
Checking work										
Watching/listening										
Drill										
No. of Students off-task										
TEACHER FEEDBACK										
Giving correct answer(s)										
Verbal Evaluation										
Written Evaluation										
No. of Students off-task										
OTHER ADULTS (NO.S)										
Coordinated or directed group activities										
Assisted individual students										
Performed other tasks (no student contact)										
TEACHER LOCATION										
Stationary										
Non-stationary										
STUDENT/ADULT INTERACTION										
Appear to work comfortably together										
Structured interaction										
Appear to oppose each other										
USE OF PRAISE AND ENCOURAGEMENT BY ADULTS										
High (2 and above)										
Medium (1)										
Low (0)										
Low (0)										
Medium (1)										
High (2 and above)										
ACHIEVEMENT ORIENTATION OF CLASSROOM										
Business-like										
Social										
Personal/Psychological										
TASK CODE	A									

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DETROIT

Teacher _____ PEER TEACHERS AS MIRRORS AND MONITORS

School _____ Room _____ Teacher Time-on-Task Observation Form

Subject _____ Topic _____ Skill _____

Observer _____ Time _____ Date _____

Directions: For each observation record a consecutive integer in the box corresponding to the teacher behavior and student grouping which best describes the activities of the past two minutes.

ACTIVITY	STUDENT GROUPING: Total Class	Large Group	Small Group	Individual	ACTIVITY
Focusing Drawing attention to new activity					
Relating Previous Learning					
					Taking Attendance
Discussing/Reviewing Completed Assignments					
					Collecting Milk/Lunch Money
Explaining Concepts or Processes Planned					
as Needed					
					Employing Disciplinary Strategies
Giving Examples					
					Making/Receiving Announcements
Providing Feedback					
					Distributing Materials
Asking Questions (probing or comprehension)					
					Collecting Materials
Praising, Encouraging, Using Student Ideas					
					Forming Lines
Conducting Drill and Practice Activities					
Monitoring Student Performance Seatwork					
Boardwork					
					Re-grouping Pupils
Assigning Independent Activities					
					Transitional Activities

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a) Teacher_____
b) Date_____
c) Time observation sweep began_____
d) # of student in room_____
e) # of students enrolled_____
f) Total # of students engaged at end of sweep_____
g) Time observation sweep ended_____

	Student #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Engaged															
	Not Engaged															
Engaged Student Activities	Reading															
	Listening															
	Writing/Drawing															
	Discussing															
	Taking test															
	Responding to questions															
Non-engaged Student Activities	Reading															
	Listening															
	Writing/Drawing															
	No apparent activity															
	Social interaction															
	Wandering															
Classroom Organization	Whole class instruction															
	Small group instruction															
	One small group, other independent															
	All working independently															
Teacher Activities--General	Oral instruction															
	Monitoring															
	Asking questions															
	Listening															
	Socializing															
Teacher Activities--Student Observed	Lecturing															
	Monitoring															
	Asking questions															
	Listening															
	No relationship															

Student Off-Task Seating Chart (to be collected every five minutes)

The purpose of this seating chart is to record each student who is off-task at each five-minute checkpoint.

A seating chart is completed every five-minutes for the length of the period. For example, ten seating charts would be completed in a fifty minute period. At the top of each chart, the activity that is occurring should be recorded. For example, "Teacher giving instruction from the chalkboard", "Students reading silently", or "Student reading aloud". It is possible to complete two time sequences on one form by using a black ink for the first recording and red ink for the second recording (see figure 3).

The observer will need to have a seating chart with the student's names recorded on it. Immediately after the period starts, the observer scans the room going clockwise. Any student who is observed to be talking to another student will be marked with an "S", for Socializing, in the box under the student's name. For example, Mary and Sue (in figure 3) were observed to be socializing.

Any student who was observed to be uninvolved in the teacher's expected activity, for example, staring out the window, out of their seat, or sharpening a pencil, will be marked with a "U", for Uninvolved, under their names (se Harry and Sam in figure 3). Uninvolved means the student is not speaking to another student but is clearly not involved with the lesson at hand.

A student who is waiting for assistance will be coded with a "W", for Waiting, under their name (see Frank in figure 3).

A summary of the percent of students off-task can be found by using the following formula:

$$\frac{\text{the sum of the number of students off-task for each observation}}{\text{the number of students} \quad x \quad \text{the number of observations}}$$

for example:

In a classroom of thirty students, 10 observations were made. In the first observation, 2 students were observed to be off-task; in the second observation, 4 students were off-task; third = 3 students; fourth = 5; fifth = 3; sixth = 1; seventh = 2; eighth = 4; ninth = 7; and the tenth time, 6 students were off task.

Using these figures, we obtain the following equation:

$$\frac{2 + 4 + 3 + 5 + 3 + 1 + 2 + 4 + 7 + 6}{30 \times 10} = \frac{37}{300} = 12.3$$

Thus, we have found that 12.3% of the students were off-task during this period.

NOTE: If the classroom seating takes a different form than the seating chart, for example, tables in a horseshoe formation instead of desks, then the seating chart should be corrected to conform to the actual classroom arrangement. The important thing is to get each student's name in the right place on the seating chart.

Stallings Teaching and Learning Institute

Teacher's Name Mrs. Smith NAPA

Date Oct. 2, 1981

Time 1: 9:15

Time 2: 9:20

ACTIVITY 1: Written Work

ACTIVITY 2: Teacher Instructing

STUDENTS OFF-TASK

	1 Row	2 Row	3 Row	4 Row	5 Row	6 Row	7 Row	8 Row	9 Row
1	John L	Mark	Thersa	Jane	Susan R	Frank W			
2	Karen	James S	Claude	Jon	Maria	Joe			
3	Sam U	Roberta	Bob	Sally	Lee	Janice			
4	Mike	John M	Libbie	Harry	Charley	Jackie			
5	Alan	Lisa	Sue P	Mary	Melvin	(empty)			
6									
7									
8									
9									
10									
11									
12									

CODES

S = Socializing
U = Uninvolved
W = Waiting for assistance

Complete a form each 5 minutes.

Place students' name in rows.

For Example:

John L.
12

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